Applicant: Nobuo Imamura et al. Attorney's Docket No.: 15682-0017US1 / OSP-19442

Serial No.: 10/566,921

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## Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

## Listing of Claims:

- 1. (Canceled).
- 2. (Previously Presented) A chip removal air blow nozzle arranged to remove residue such as chips that have remained in and adhered to an interior of a bag-shaped machined hole in a work piece, the chip removal air blow nozzle comprising:

a nozzle distal end portion that is adapted to be inserted into the machined hole; and a spiral flow creating portion that is provided in the nozzle distal end portion and changes a flow of air that is flowing inside the nozzle therein into a spiral flow,

wherein:

the spiral flow creating section has a plurality of guide pieces that are formed at [[the]] <u>a</u> distal end <u>portion</u> of the nozzle <u>distal end portion</u> and are <u>formed in a twisted into a serew</u> shape <u>so as to form the spiral flow;</u>

the plurality of guide pieces forms three notch portions;

the three notch portions are formed at 120° intervals in the nozzle distal end portion;

the three notch portions are inclined at an angle of between 30° to 45° relative to an axial direction of the chip removal air blow nozzle; and

the three notch portions have lengths in a range of 4 mm to 6 mm from the nozzle distal end portion.

3-6. (Canceled).

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7. (New) An air gun of a chip removal apparatus which removes residue such as chips that have remained in and adhered to an interior of a bag-shaped machined hole in a work piece, the air gun comprising:

a chip removal air blow nozzle provided with a spiral flow creating portion which is arranged in a distal end thereof, and has a plurality of guide pieces that are formed in a twisted shape so as to change air flow flowing therein into a spiral flow;

an air supply block that supports a bottom of the chip removal air blow nozzle; an air supply hose that supplies air to the chip removal air blow nozzle through the air supply block;

a main block which is joined with the air supply block and includes an aperture portion formed therein;

an ejector member which is joined with the main block and is formed with an ejector chamber and an ejector hole, the ejector chamber communicating with the aperture portion, and the ejector hole communicating with the ejector chamber;

a recovery air supply hose which supplies air to the ejector hole;

a discharge hose that is connected to the ejector member so as to communicate with the ejector chamber;

an outer cylinder connected to the main block, an inside of the outer cylinder communicating with the aperture portion; and

an inner cylinder slidably provided in the outer cylinder, an inside of the inner cylinder communicating with the inside of the outer cylinder,

wherein the chip removal air blow nozzle passes through the aperture portion, the inside of the outer cylinder, and the inside of the inner cylinder, such that the spiral flow creating portion is exposed out from a distal end of the inner cylinder.

8. (New) The air gun of the chip removal apparatus according to claim 7, the air gun further comprising:

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a guide which is connected to the distal end of the inner cylinder and guides the chip removal air blow nozzle;

a spring which urges the inner cylinder such that the inner cylinder protrudes from the outer cylinder; and

an engaging portion which prevents the inner cylinder coming out from the outer cylinder.

9. (New) The air gun of the chip removal apparatus according to claim 7, the air gun further comprising:

a valve which is connected to the air supply hose and intermittently supplies the air to the chip removal air blow nozzle.

10. (New) The chip removal air blow nozzle according to claim 2, arranged so that when air is being blown from the chip removal air blow nozzle into the machine hole, a solenoid valve for an air supply hose that is connected to an air supply source is operable to be intermittently opened and closed.